



## Advanced Energy Industries, Inc.

*Advanced Energy Industries, Inc. presentation delivered at the 51st Annual J.P. Morgan Global Technology, Media and Communications Conference on Tuesday, May 23, 2023 at 2:35 PM*

**Ariel Granoff:** All right, good afternoon. Thank you for joining us. My name is Ariel Granoff. I'm the Managing Director in the JP Morgan Tech Investment Banking team. It's my pleasure to host this fireside chat today with Advanced Energy.

With us today, we have Steve Kelley, President and CEO, and Paul Oldham, CFO, and Edwin Mok as well, Investor Relations. Before we begin, Paul is going to do the requisite safe harbor comment.

**Paul Oldham:** Yeah, thanks, Ariel. It's great to be here with everyone.

Just a reminder that any statements we make today are subject to a number of risk factors. You can read about those risk factors in our SEC statements. Also, we had our earnings release back on May 1st, at which point we gave guidance and we will not be providing any updates to guidance today.

**Ariel:** Thank you. For members in the room but also on the webcast who may be less familiar with the Advanced Energy story, can we just start off with a quick overview of the business, your product portfolio, and your customer base?

**Paul:** Yes. Advanced Energy is a 42-year-old company. We're located in Denver, Colorado, but we have operations around the world. Our business is supplying advanced power delivery systems to demanding customers.

Our core business was in the semiconductor equipment area. That's how we started the company, basically delivering pulse power to plasma chamber makers, like Applied Materials and Lam.

Over time, we've made various acquisitions and built up additional businesses to our semiconductor business. The two biggest have been industrial and medical. We're also involved in data center computing, telecom, and networking.

**Ariel:** Just to also get recent performance out of the way, since it's on everyone's mind, can you just give us a quick update on the first quarter and anything you can say on how the second quarter is tracking?

**Paul:** It was a solid quarter for us. We were able to beat our guidance on both revenue and earnings. The semiconductor market was down exactly like what we thought it would be. Overall, we expect that market to be down again in the second quarter, which is very consistent with what we thought back late in the calendar year, last year.

At the same time, our diversification strategy is working. Our industrial and medical products had a record quarter. That was very good to see. Then we were mixed between our data center and telecom and networking areas. All in all, it was a very solid quarter in a down market.

Of course, our goal this year is to perform better than we have in previous down cycles and to perform better in markets and I think we're right off on track to that after the first quarter.

**Ariel:** That's great. On semis, on a lot of people's minds right now is when will the semi cycle trough out? Why is it exactly? Maybe you expect the second quarter to be your trough? Then, what indicators will you be looking at to determine if we've really reached that trough? Is there anything that can tell us that we're coming out of it?

**Paul:** What we said at our last earnings call was to expect Q2 to be our trough, and that's based on what we see from our customers, specifically their forecast in the second half. We think the second half will be roughly equivalent to the first half, or better than the first half, based on what we see in the backlog and in our forecast.

We don't see a strong recovery, but we see a slow recovery in the semiconductor market that should continue into 2024.

**Ariel:** Outside of semi, you're targeting stable revenue this year. You have these very diverse end markets. What are the different puts and takes for those other end markets?

**Paul:** We said, basically, if you look at our company revenue last year, roughly half the revenue was into the semiconductor equipment market, and that's the part that's going down this year. The other half is in our other markets, industrial, medical, telecom, networking, and data center.

We think, in aggregate, those other markets, non-semiconductor markets will be roughly flat year-on-year. There's a lot of variation from market to market, but overall, we're happy with the flat forecast.

What also helps us in those other markets is we still have substantial delinquent backlog that we expect to ship in the coming months as the final parts shortages are solved.

We've been dealing with part shortages now for two years, and I think we're at the end of the road. We think, as we get these additional scarce parts into our inventory, we'll be able to ship completed boxes to our customers very quickly.

**Ariel:** You mentioned industrial and medical. That's an area you guys have been really interested in as a growth driver for the business. What are some nearer- and longer-term growth drivers for that end market?

**Paul:** The nice thing about industrial medical is it's a very broad market. If you look at our customer base today, it's roughly 15,000 customers. We address some of those customers directly, but many, we go through distribution or through sales reps.

It's a very broad market and we are products that satisfy the needs of very many different sub-segments in that market. Because we put focus on it, the past couple years, were figuring out exactly where our products fit.

We've profiled these various applications, which range from horticulture to test and measurement, to fast charging EV applications, and where we've been successful. We profile those successes and use those successes to help our sales people in other regions try to replicate those successes at some of our customers. That program is working out very well for us.

**Ariel:** We can turn into some hot topic issues. One of your large competitors recently had a significant cyberattack. Has that been a positive event for you and how have you even gone about thinking about how to protect your own systems?

**Steve:** Yeah, I think that cyberattack incident was a negative for the industry. It seems that we're recovering now from it, but it certainly shined a spotlight on our defense strategy in cyberspace. We spent a lot of money, over the years, building our defenses in that area.

Obviously, we've had a lot of conversations with customers, not just in the semi-equipment

space, but other major customers for Advanced Energy, where this has become a top three issue for those customers. I think that they see our strategy as a positive for the company. We think it helps us moving forward.

**Ariel:** Another one that I feel like everyone's always asking about, the US export controls China. Can you talk a little bit about have you been able to ship to customers in China? What happens to orders, you've had to remove?

**Steve:** The export controls apply to the advanced fabs in China. When those new rules were promulgated in October of last year, we immediately stopped shipping into a plasma power customers in China.

In over the last, let's say six months, we think we've developed a protocol, where we can be assured that when we ship our boxes into China, they end up in the appropriate fabs and not in deleting that fabs. We're working very closely with our customers in China to make this happen.

It's important to realize, however, that China does not represent a significant part of our revenue. It's in the low single-digit percentage of our total revenue. We're making some incremental shipments into China, but our first priority is compliance with the export control regulations. Second priority is revenue.

**Ariel:** On the positive side, you have US and European Chips Act, is it too early to tell how those will impact your business, or do you have a view?

**Steve Kelley:** Yeah, our view is the Chips Act in the US and what's happening in Europe, and Japan, and Korea is going to be a net positive for the industry. It's good for our customers in particular.

We don't expect to benefit directly from those subsidies and grants, but we're going to benefit indirectly, because as our customers ship into these geographies, they're going to need to buy more for Advanced Energy. That's a good thing for us.

**Ariel:** Back to first quarter. A lot of companies were obviously facing reductions in orders, backlog, etc. Your backlog last year, ran up to 1.2 billion. It's come down a little bit over the last few quarters. Can you give us a little bit more color on what drove those decline?

**Paul:** Sure. Typically, Ariel, we don't carry a lot of backlog in our business, because our lead

times are in the 12 to 18-week time frame. Many of our customers buy off their own floor through some a JIT arrangement or a hub arrangement.

What we saw the last year and a half is with the supply shortages, we saw that really shift. A lot more direct orders, a lot more orders placed out in time, because of lead times. We expected that as supply chain improved, would start to see our backlog contract somewhat. That's what's happened.

About half of that backlog contraction from its peak is us filling delinquent orders and a portion of it is customers moving back towards a more normalized order pattern. We picked out about a billion one in backlog.

We're a little under \$100 million today, and we expect that the normalized range is in the 4 to 5 hundred-million-dollar range. We'll probably get there in the next two to three quarters. That will continue to be a little bit of a buffer for us as that backlog comes down, we're able to fill those delinquencies.

In the long run, that we think it's a more healthy range once we get to a more normalized level. I'll tell you, the backlogs, very healthy. Over 80 percent of it is our semiconductor and industrial medical customers. It's largely shippable, or with a customer request states within the next six months.

We haven't seen any cancellations over this period of time. It's been more not placing orders at the longer lead times as the backlog has come down.

**Ariel:** You view it as very sustainable and durable. None of that production is really just driven by more macro trends.

**Paul:** I think there are some macro trends that customers are changing their order patterns. There are certainly some lower demand. Semi demand is definitely down. I think the backlog that's there is solid, and we'll continue to take advantage of that until we get to a more normalized level.

**Ariel:** You referred to some supply chain issues. Can you talk a little bit more about how that's alleviated since the last time we were here?

**Steve:** A lot has happened in the past year. I'd say overall, the supply chain issues have led to

considerable extent. However, we still have issues, and most of those issues are set up in power MOSFETs, some analog ICs, particularly power analog ICs. Then we still have some issues with microcontrollers.

While the list has gotten considerably shorter, those problems are still there. They're still constraining our shipments into the data center computing market, telecom, networking, industrial, medical markets. We do think, however, given current trends, that we should see most of our supply chain issues abate by the end of this year.

**Ariel:** Besides just general improvement on supply chain, are you doing any more alternative qualification redesign?

**Steve:** Yeah, we did a lot of alternative qualifications of redesigns over the past two years. We've been fortunate that our customers have been very cooperative, they work closely with us on these qualifications. We really appreciate that. It's really brought us closer together to our customers as we work to solve these supply chain issues.

Over the course of the last two years, we've also been able to clarify our supply chain strategy, become more aware of our good suppliers and our suppliers who didn't quite measure up during these periods of supply chain constraints.

We're definitely steering more business towards the suppliers who support us well during the shortage period. I think we'll come out of this much stronger from a supply chain standpoint.

**Ariel:** Any other notable steps you've taken to improve operations over the last couple years?

**Steve:** Yeah. I think the biggest move was to bring in a new supply chain and operations leader with a lot of experience in the semiconductor industry. He came to us from NXP, and prior to that, TI. He's got a strong focus on quality and a strong focus on efficiency.

Those are the two things that matter most for Advanced Energy. We're a high mix, low volume, type of manufacturing company. Our ability to satisfy the needs of higher-end customers is critically important to our success.

That really helped us out last year in 2022 where we were able to outperform our competition, both on the supply chain side and the operation side. We see a long-term risk that competitive differentiator in addition to our technology leadership.

**Ariel:** One thing that we actually spoke about when you were here last year was your Shenzhen exit. How has that, ultimately, impacted your business?

**Steve:** Yeah, we exited Shenzhen December of last year, and it had zero impact on our business. We had transferred all of that business to our Malaysian facility in Penang. Customers didn't see any issue at all when we exited Shenzhen. Our China strategy is to basically limit our footprint in China, our factory footprint.

We announced the closure of a second factory, small factory that we inherited as part of the ASL Power acquisition, and that will happen later this year. Then we'll be left with one factory which was part of the Artisan acquisition.

We expect over the next two to three years that that will shrink and become more of a China for China type operation. There's a strong desire for many of our customers in the US and in Europe to move manufacturing outside China to limit their risks.

**Ariel:** We actually got a question from the webcast that has an output of all these different changes you're talking about. Paul, this is probably for you. Can you talk a little bit about your gross margin cadence for '23? How quickly can you reach pre-pandemic gross margin levels?

**Paul:** It's a really good question. We continue to have overhang from the higher material premiums that we've been paying. That did start to abate a bit in the first quarter, we talked about that. It helped us to actually keep gross margins about flat even though volumes were down a lot. We think that will continue to improve over the course of the year, but it will be slow.

Part of the reason it's slow is the premiums have to abate, and then it has to roll through our inventory. It will improve over the course of the year, but slowly. Also, over the course of the year, we'll continue to make improvements our own operations. Steve referenced the closure of another one of our sites.

We're looking at our overall factory footprint and other efficiency improvements that we can make. Those will also occur over the course of this year. Those two things, principally, should position as well as we go into 2024, and see some volume improvements to see a pretty good gross margin tailwind moving into 2024.

We're pretty excited about that opportunity. This year will be a transition year with the downturn in

the markets, but an opportunity for us to continue to improve our own operations, improve the efficiency, and hopefully, put some of these higher material costs behind us.

The last thing I would mention relative to this year is that it's a great opportunity to introduce new products. As we go into 2024 and beyond, we should have a number of new products that will also help us over time to improve our gross margins.

**Ariel:** It's a good segue. I think a lot of people have just been taking the attitude of, we have to get through this year, and everything will be better in '24. You guys have taken the opportunity to launch a number of new products. Do you mind talking about those in a moment?

**Steve:** We see this as potentially one of the best years in our history, 2023. Quite frankly, over the past two years, most of our customers and Advanced Energy were focused on these recalls, alternative park walls, redesigns, and so forth, just hustling to meet the demand that was right in front of us.

This year is different. The difference is that our customers are out of that mode and they're hungry for new technology so that they could differentiate and gain share coming out of this downturn. We were fortunate in that we launched two new platforms into the semiconductor equipment market in the first quarter.

Those platforms have been extremely well received by our customers. We think over this year, we're going to gain quite a few new significant design wins, which sets the table for us to gain market share in semiconductor equipment over the coming five years.

On the other side of the business, we're also launching a record number of new products in power sensing and control that have been well received. Today we have a design win funnel that's much better than it's ever been. We're very optimistic that 2023 is going to be a really significant year from a new product launch and a design wins perspective.

**Ariel:** You mentioned, obviously, the semi one specifically, but are some of these other products across all the different end markets that you service, or are there any concentrations?

**Paul:** Yeah, they're across. What we do on the other parts of the business is we launch platform products. Typically, our customers in the other parts, the industrial medical parts, of the business will evaluate our platform product, come back to us with some small changes. We'll basically adapt the product to their needs, earn the design win.



That customer will typically keep buying that product for many years to come. It's a very sticky business, relatively small volume, but it lasts forever. We like these long life cycle businesses where customers need something special and are willing to pay for performance.

**Ariel:** It sounds like it's worth the effort upfront. How long is that sales cycle, that development cycle of the...

[crosstalk]

**Paul:** The sales cycle in the non-semiconductor markets could be very quick/it could be very long. Probably the longest cycle is in medical because medical requires a lot of certifications not just from our customer but from their customer. We have to build that product in certain certified facilities. It's a longer design cycle.

In some other parts of our business, it could be very quick. If particularly, we're displacing another competitor, the qualification can be very quick.

**Ariel:** You mentioned that you've had some design wins on the semi side. If we can turn now, during downturns, not surprisingly easy pullback in capex from semi businesses. As a result, suppliers tend to actually underperform, even the equipment OEMs. It seems like you guys have been able to buck that trend to some extent.

Can you talk a little bit about how you've been able to outgrow WFE spend this year?

**Paul:** There have been a few bright spots for us that have helped us buck the trend to a certain extent. The first has been our service business. That's been very strong. Basically, that's a function of our installed base.

Our installed base has grown quite significantly over the past few years. Those are customers coming back for repairs, for upgrades, and for calibration services. That's a very strong area for us.

The second is what we call the high-voltage business. This business caters particularly to the ion implant makers. Ion implant has been extremely strong. It's bucked the overall trend in semiconductor. We're the number one supplier into that particular segment. We benefited significantly from that in 2022 and 2023.

Then, finally, we have a number of design wins that we've earned over the past two years which are ramping to production. They tend to ramp in a counter-cyclical way. These are new platforms that our customers' customers still need. That also helps offset some of the headwinds of the overall chip market.

**Ariel:** What has led to some of these design wins? How competitive is the space? What's allowing you to win?

**Paul:** In the semiconductor equipment space, it's largely about technology. If you have a technology that's better than your competitors' -- by that, does it allow the customer to increase throughput, to increase yield, increase reliability? -- if that's the technology you have, you're probably going to win. It has to be at a reasonable cost, of course.

That's what drives meaningful share shifts in the semi equipment business.

**Ariel:** I was going to ask this later, but I feel like it's relevant now. One thing that's unique about your business is you're really focused on expanding within precision power.

Some guys go out and they try to expand their product portfolio a lot more, but you've maintained that focus across your different markets. Is that still the plan going forward and how do you expect to continue that growth going forward?

**Steve:** Yeah, we think our core competence is Precision Power. We have over 1,300 development engineers in the company, who are among the top people in their field is. We think this is where we could add the most value.

Another thing we do within the company is that we share technology. Technology that we develop for one market can offer-ably be used in a different market. That allows us to create combinations of technology that our competitors cannot do, because they don't have the same confidence under the same roof.

We think it's a force multiplier. We also look at our markets and we realize even within the markets we serve or focus on, which is semiconductor, industrial medical.

We have a lot of room for growth. Most of that will be organically, but also we will continue to make acquisitions that improve our position in industrial, medical and semiconductor.

**Ariel:** I would do want to go back to industrial and medical, but maybe a basic question to start off. You have semis, you have industrial, and medical, you have data center, computing, telecom networking. What is it about industrial and medical that brings those two together?

**Steve:** What we like about semiconductor, industrial and medical is that by and large, the products we supply to those markets our sole-source and they drive higher margins. Anything that we could sell that averages up the company margin is a good area for us to play. That's why we focus on those areas.

The other markets, while their sole-source opportunity, it's still mostly multi-source. We're de-emphasizing multi-source opportunities in putting particular emphasis on sole-source opportunities, where we can apply the expertise that the customers need to achieve their goals.

**Ariel:** We already talked about your differentiation within semis and you spoke about this point as well. Is there anything unique to industrial and medical where you differentiate that you haven't talked about or anything?

**Steve:** I think it's a sheer breadth of technology, first of all. The number of people we have working on it, our field support. We have a worldwide network of field applications engineers and sales people. We have a worldwide network of service centers. We have a dozen service centers scattered across the globe.

We have the ability to invest. We have a very strong balance sheet, which is a differentiator relative to smaller competitors and it's our focus area. This is an area that we're serious about becoming bigger in and our customers get that message.

They know we're going to be around 10 to 15 years from now. We have the staying power that they need to keep buying from us over the next 10, 15, 20 years.

**Ariel:** You're talking about specific areas within semis that are helping to believe some of your performance. Are there any sub-sectors or areas within medical or industrial that are doing the same thing for that vertical?

**Steve:** I don't think there's anything that jumps out of the page, but we've identified a number of areas in medical, where even though the supply of power is critical.

Those are the areas where we focus on, where we can add some value, either from a variability standpoint, or performance standpoint or some combination of those two that results in a good outcome for the customer.

**Ariel:** Touch quickly, we haven't talked really at all about the data center market. Do you mind speaking a little bit about your strategy within data center and computing and as well as telecom and networking?

**Steve:** Our approach in data center, telecom, and networking has been to focus in on areas where we could add value and differentiate relative to our competitors. We're focusing on sole-source opportunities, where we could deliver 1 value to the customer. That's been a change.

Basically, what we've done in that part of the business is to focus on bottom line growth over top-line growth. That's a different strategy from industrial and medical and semiconductor, where we're trying to grow as fast as we can.

In telecom networking and data center, we're trying to be more judicious and focus on opportunities where we could drive decent margin, because we're delivering value to the customer.

**Ariel:** Before I pivot to Paul, let's talk a little bit more about the financial model and capital allocation. I do want to remind folks who are on the webcast that I can see questions like I did earlier, feel free to submit them if you'd like.

On to some financial questions. We spoke a little bit already about gross margins, but can you talk a little bit more about the inflationary impact on OpeX this year?

**Paul:** Sure, we are seeing inflationary impact on operating expenses both in labor cost and cost in general, utilities, travel. Everything is more expensive as everybody knows.

They're doing a number of things to manage that. Obviously, during this period, as Steve said, we want to continue to invest in engineering. We want to continue to invest in things that help us grow and scale the company.

Our overall strategy has been to look for areas where we can centralize some activities. I look at discretionary spending quite actively. The result of that is we'll be able to hold our expenses about flat. Overall, we estimate the inflationary impact, probably five or six percent. Holding it flat,

we think is the right goal at this level.

Now, our second quarter operating expense will be up a little bit, because of timing, salary increases, but we should see expenses trend back down a little bit after that, based on the actions that we're taking.

**Ariel:** How has it been investing in engineering resources? You have puts and takes, you have a very tight labor market, but you have a lot of companies that are being forced to cut headcount. Have you been able to hire those people that you need with the right expertise?

**Steve:** Yeah, our first priority is retention over key engineering personnel. We've done a pretty good job of that, the past couple of years. Second priority is to hire additional talent to buttress what we already have in-house.

It sets a key priority for the company and we do that a couple ways. One is from a monetary standpoint. We have an attractive package, which includes equity. The second is to provide an environment where they could be creative.

If you're a power engineer, it's a good experience to work in Advanced Energy. I've often heard it described as a playground for power engineers. You can just see it on their face, they're having a lot of fun working with their peers. That's the environment we try to create at the company.

**Ariel:** You guys have a really nice chart. You put a lot of your rest, your presentations about your capital allocation strategy. Can you talk a little bit about that?

**Paul:** Sure. We want to use the majority of our capital to grow the company and that's obviously, through internal growth and investments, but it's also through inorganic growth.

Generally, we target about 75 percent of our resources to growing the company and we have a good track record of acquisitions. If you look over the last several years, we've done more than 10 acquisitions.

They've all been accretive. They've all grown since they've been in the company. We've generally deployed our capital at about that range, interestingly enough over the last five or six years. The same time, we want to return some cash to shareholders. We do that through two means.

The first is through an opportunistic share repurchase program. That program is served as well.

We've been able to buyback the stock at periods when the stock is cycled lower. Last year, we bought back quite a bit of stock at a price that was in the below \$80/share range.

We have that program in place all the time. Although, we constantly looking at holistically, what our cash needs, where we on the M&A front, what's the intrinsic value the company to assess the framework that we would repurchase stock?

Overall goal is to offset dilution, but the reality is we've actually been able to bring our share price down, because our program has been pretty effective. We also have a dividend that we pay. It's 10 cents/share/quarter.

It's not a big yield, but it's evidence of the fact that we have a strong balance sheet. We're able to make money in good times and bad, and were able to return cash to shareholders on an ongoing basis.

**Ariel:** You have a strong balance sheet, how much debt could you put on your balance sheet if you found the right acquisition?

**Paul:** Our current debt/EBITDA is in the little over one to one and a half times right now. We could easily support three times EBITDA. We could go higher than that, if there is a right acquisition, because we have a lot of ability to deleverage the debt. That's generally the range that we'd be comfortable in.

We do have a very attractive debt position today. It's priced quite well and within that, we have an unused \$200 million line of credit and a \$250 million accordion. We have plenty of access to capital if the right acquisition came along.

**Ariel:** Plus over \$400 million of cash on your balance sheet.

**Paul:** Plus over \$400 million of cash in the balance sheet. That's right.

**Ariel:** We have one minute left, bankers are always good at having a catch-all at the end, what should we have asked that we didn't? Is there anything you think is important for folks to know about the business that we didn't address today?

**Paul:** I think there's a couple important things about Advanced Energy. One is that we have a diversified strategy that's serving us well. In this semiconductor down market, we expect to

perform much better than we performed in previous semi-downturns. We expect to perform better than our markets.

We're also using this time as a transition in the company to get new products in hands for our customers and set us up for future growth, as well as to make operational improvements that should improve our financial model as we exit the downturn.

**Ariel:** Steve, Paul really appreciate the time. Thank you so much.

**Steve:** Thanks, Ariel, appreciate it.

**Paul:** Thank you very much.



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